Indiana Traffic Safety Facts 2003

Overview

http://www.in.gov/cji

Introduction

Motor vehicle travel in Indiana is the primary means of transportation. Every year there has been an increase in registered vehicles and licensed drivers. Despite all the education and highway safety improvements, motor vehicle crashes cause a considerable number of injuries and death each year. Nationally, traffic fatalities account for more than 90 percent of all transportation-related fatalities. The goal of the Indiana Criminal Justice Institute is to reduce deaths, injuries and economic losses caused by motor vehicle crashes.

In 2003, the Indiana fatality rate per 100 million vehicle miles increased from 1.06 in 2002 to 1.12. The 1991 rate was 1.88 per 100 million vehicle miles traveled. Indiana had a record 82.3 percent safety belt usage rate for all passenger vehicles and 88.3 percent for passenger cars as measured by the 2003 annual safety belt observational survey. Alcohol involvement in fatal crashes decreased from 33 percent (2002) to 31 percent in 2003.

In 2003, Indiana had 754 fatal crashes killing 834 people.

In 2003, 834 people were killed in 754 fatal vehicle crashes in Indiana, representing an increase of 5.3 percent from 2002. Nevertheless, 2003 achieved a 10.7 percent decrease from the previous ten years' average.

This overview fact sheet contains statistics on motor vehicle fatalities based on data from the Fatality Analysis Reporting System (FARS). FARS is a census of fatal crashes within the 50 states, the District of Columbia, and Puerto Rico.

An average of 2.3 people died each day in Indiana motor vehicle crashes, one every 10.5 hours.

Vehicle occupants accounted for 91.6 percent of Indiana traffic fatalities in 2003. The remaining 8.4 percent were pedestrians or pedalcyclists.

Other fact sheets available from the Indiana Criminal Justice Institute and the Center for the Advancement of Transportation Safety include *Alcohol, County Alcohol Estimates, Young Drivers, Speeding, Occupant Protection, Motorcycles, Large Trucks, and Children.* They can be accessed by visiting the ICJI web site or the CATS web site at www.ecn.purdue.edu/cats.

Table 1. Motor Vehicle Occupants and Nonoccupants Killed, 1994-2003

	Occupants							Nonoccupants				
Year	Passenger Cars	Light Trucks	Large Trucks	Motorcycles*	Buses	Other/ Unknown	Total	Pedestrian	Pedalcyclist	Other	Total	Total
1994	583	141	25	60	1	66	876	82	12	1	95	971
1995	576	158	20	59	2	52	867	78	14	1	93	960
1996	599	152	18	54	0	70	901	76	6	1	83	984
1997	551	164	21	44	0	65	849	72	13	1	86	935
1998	553	183	21	59	0	71	897	71	14	0	85	982
1999	544	210	37	60	1	78	937	68	14	1	83	1,020
2000	473	186	24	68	0	63	819	54	11	2	67	886
2001	479	205	18	69	0	63	840	56	12	1	69	909
2002	425	198	17	86	0	2	730	53	9	0	62	792
2003	416	228	23	78	1	18	764	62	7	1	70	834

*Excludes motorized bicycles, minibikes, motor scooters, mopeds, three-wheeled motorcycle/ mopeds, off-road motorcycles, other motored cycle types, and unknown cycled type.

Table 2. Persons Killed and Fatality Rates, 1994-2003

Year	Killed	Resident Population (Thousands)	Injury Rate per 100,000 Population*	Licensed Drivers (Thousands)	Fatality Rate per 100,000 Licensed Drivers	Registered Motor Vehicles (Thousands)	Fatality Rate per 100,000 Registered Vehicles	Vehicle Miles Traveled (Millions)	Fatality Rate per 100 Million VMT
1994	971	5,746	16.90	3,680	26.39	5,132	18.92	61,136	1.59
1995	960	5,792	16.57	3,881	24.74	5,210	18.43	64,552	1.49
1996	984	5,835	16.86	3,902	25.22	5,348	18.40	66,220	1.49
1997	935	5,872	15.92	3,923	23.83	5,344	17.50	68,633	1.36
1998	982	5,908	16.62	3,976	24.70	5,455	18.00	69,129	1.42
1999	1,020	5,943	17.16	3,877	26.31	5,495	18.56	70,040	1.46
2000	886	6,080	14.57	3,976	22.28	5,571	15.90	70,862	1.25
2001	909	6,115	14.87	4,006	22.69	5,765	15.77	71,624	1.27
2002	792	6,159	12.86	4,221	18.76	5,889	13.45	74,646	1.06
2003	834	6,196	13.46	4,424	18.85	5,861	14.23	74,373	1.12

*Injury Rates per 100,000 Population are based solely upon persons injured as a result of being involved in a fatal crash.
Sources: Fatal Injuries -- Fatality Analysis Reporting System (FARS), NHTSA, as of 8/20/04. Registered Vehicles -- Indiana BMV. Vehicle Miles Traveled -- Indiana Department of Transportation.

Safety restraint use was 13.9 percent lower among male front seat occupants than their female counterparts in 2003.

Occupant Protection

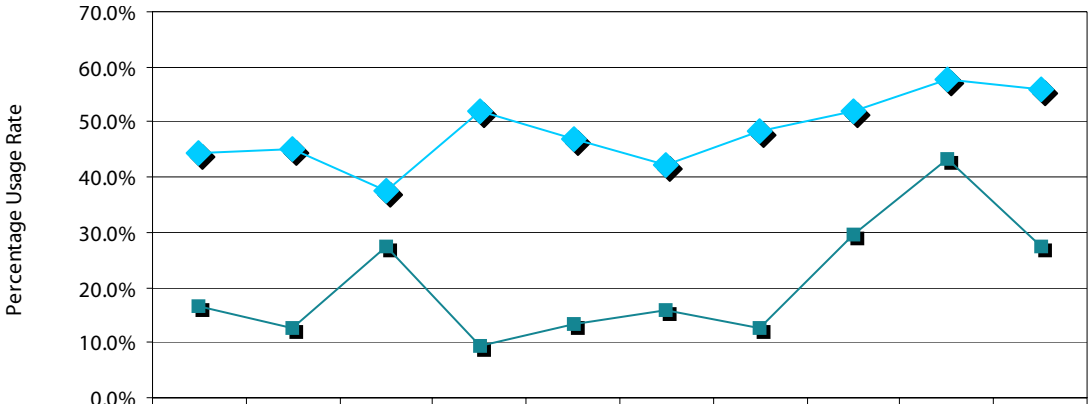
With the exception of New Hampshire, every state has mandatory safety belt laws. However, only 15 states and the District of Columbia extend this requirement to passengers in the rear seats. While Indiana is not one of these states, it is one of the 18 states and the District of Columbia that have primary enforcement, which allows law enforcement officials to stop passenger motor vehicles based upon their observation of non-safety belt use alone. In Indiana, all front seat occupants as well as all rear seat passengers under 12 years of age must be restrained, unless they are in an out-of-state vehicle. However, the current Indiana safety belt law excludes all occupants in pickup trucks who are over three years of age. This loophole in the law unfortunately exposes these occupants to unnecessary greater highway safety risks. All children under the age of four must be properly restrained by a child safety seat. Violators of Indiana's primary safety belt law may receive a fine not to exceed $25 for a safety belt violation, and up to four points may be assessed on the driver's record for each violation in which child passenger restraints are not used.

Children in rear-facing seats should not be placed in the front seat of cars equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child seat could result in death or severe injury to the child. NHTSA also recommends that children 12 and under ride properly restrained in the rear seat away from the force of a deploying air bag.

Based upon the fatal crash data, safety restraint use plays an important role in preventing occupant ejection from the vehicle during a crash. In 2003, there were 28 passenger car drivers killed that were totally ejected from their vehicle at the time of the crash. Of those 28 drivers, 24, or 85.7 percent, were unrestrained. Another 11 out of 16 drivers (68.8 percent) were unrestrained and partially ejected. For light trucks, 15 of 18 fatally injured, unrestrained drivers (83.3 percent) were completely ejected, with another 5 of 7 (71.4 percent) partially ejected while unrestrained.

The 2003 Indiana crash report data indicate that correct safety restraint use was less likely to occur when alcohol involvement was reported by the investigating officer. When restraint usage was known, 66 out of 90 killed intoxicated passenger-vehicle drivers (73.4 percent) were not wearing safety belts. Further, of a total 60 killed intoxicated passenger-vehicle drivers age 21–44 years old (with known restraint use), 74.8 percent were unrestrained. For all passenger-vehicle drivers killed in crashes, the rates were 48.4 percent unrestrained for all age groups, and 55.7 percent for drivers age 21–44.

Figure 1. Restraint Usage Rate In Fatal Crashes, Passenger Cars vs Pickup Trucks, 1999-2003



	1999 (Jan-Jun)	1999 (Jul-Dec)	2000 (Jan-Jun)	2000 (Jul-Dec)	2001 (Jan-Jun)	2001 (Jul-Dec)	2002 (Jan-Jun)	2002 (Jul-Dec)	2003 (Jan-Jun)	2003 (Jul-Dec)
Cars	44.5%	45.0%	37.6%	52.1%	46.8%	42.3%	48.2%	51.9%	57.6%	56.1%
Pickups	16.5%	12.8%	27.2%	9.3%	13.5%	15.8%	12.5%	29.6%	43.4%	27.4%

Period

Motorcycles

Between 1999 and 2003, motorcyclist fatalities increased by 30 percent, while motorcycle registrations increased 36 percent over the same period. Indiana's fatality rise mirrored the national trend between 1999 and 2003, where motorcyclist fatalities increased by 49 percent. Despite an increase in motorcyclist fatalities, the number of fatalities and fatality rates in Indiana still remained lower than levels prior to 1987, the first year of the Motorcycle Operator Safety Education Program. In 1987, there were 120 motorcyclist fatalities, and the fatality rate per 100,000 vehicles was 114.38.

Table 3. Motorcyclist Fatalities and Fatality Rates in Indiana, 1999-2003

Year	Fatalities	Registered Motorcycles	Fatality Rate*	Vehicle Miles Traveled (millions)	Fatality Rate**
1999	60	101,140	59.32	256.78	23.37
2000	68	114,293	59.50	260.62	26.09
2001	69	120,062	57.47	334.19	20.65
2002	86	128,013	67.18	355.43	24.20
2003	78	137,788	56.61	353.94	22.04

Table includes all motorcycle drivers and passengers suffering a fatal injury in a roadway crash. Fatality Rates and Vehicle Miles Traveled have been rounded to the nearest hundredth for presentation.

* Rate per 100,000 registered motorcycles.

** Rate per 100 million vehicle miles traveled.

Sources: Fatal Injuries -- Fatality Analysis Reporting System (FARS), NHTSA, as of 8/20/04. Registered Vehicles – Indiana BMV. Vehicle Miles Traveled -- Indiana Department of Transportation.

Large Trucks

In 2003, in Indiana, 166 large trucks were involved in fatal traffic crashes. A total of 156 people died in crashes involving large trucks, representing 18.7 percent (157 of 834) of all traffic fatalities reported in Indiana in 2003.

Table 4. Involvement in Fatal Crashes and Involvement Rates for Large Trucks in Indiana, 2000-2003

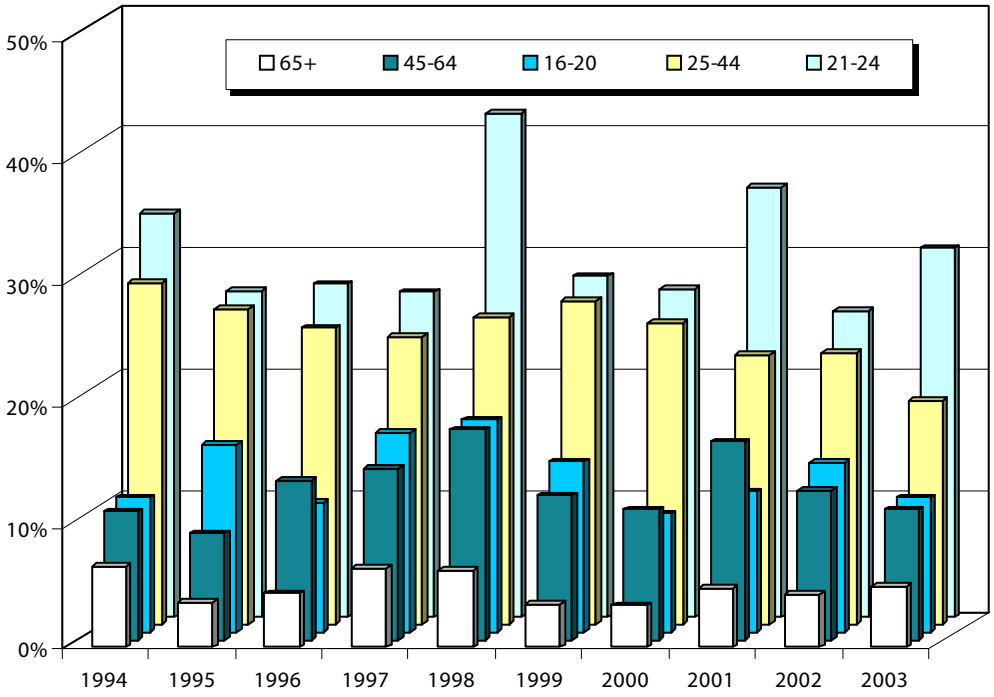
Year	Number of Large Trucks Involved in Fatal Crashes	Number of Large Trucks Registered	Vehicle Involvement Rate[1]	Average Annual Vehicle Miles Traveled (millions)	Vehicle Involvement Rate[2]
2000	167	75,295	22.2	95.03	1.76
2001	133	75,630	17.6	97.94	1.36
2002	120	75,093	16.0	96.48	1.24
2003	166	76,589	21.7	96.59	1.72

[1] Rate per 10,000 registered vehicles
[2] Rate per annual million vehicle miles traveled
Source: Vehicle miles traveled: Federal Highway Administration
Registered large trucks: Indiana Bureau of Motor Vehicles

Alcohol

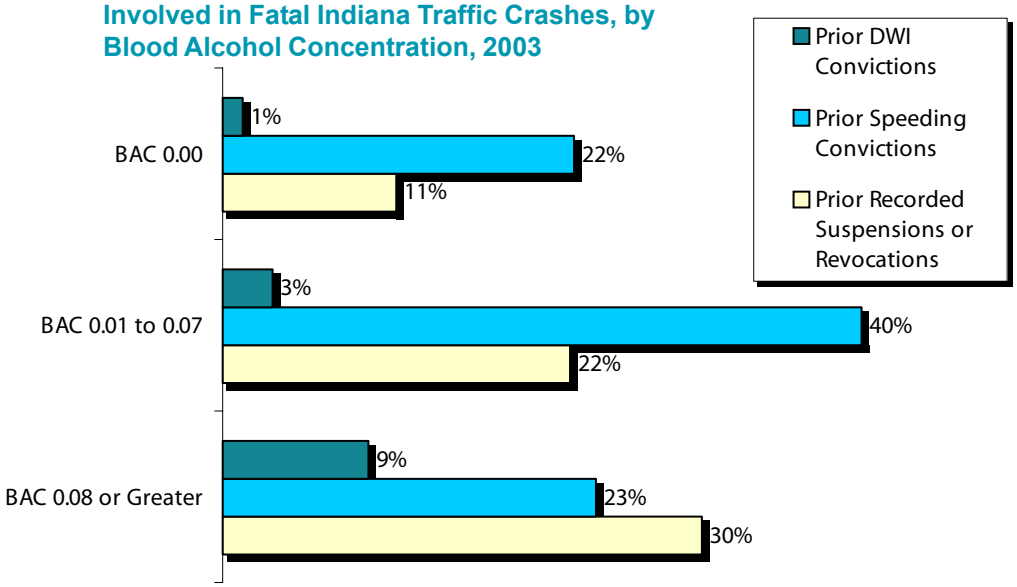
The national standard for *alcohol-related* traffic crashes is defined as the presence of alcohol in a driver or non-occupant with a blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater in the police-reported traffic crash. In 2001, Indiana became one of the 19 states and the District of Columbia to define *intoxication* as a blood alcohol content of 0.08 g/dl or greater when it reduced the legal limit from 0.10 (g/dl). However, all states consider a driver under the legal age limit for alcohol consumption (21) to be in violation if his or her BAC is .02 g/dl or greater. The National Highway Traffic Safety Administration estimates that "3 in every 10 Americans will be involved in an alcohol-related crash at some time in their lives."

Figure 2. Intoxicated Drivers in Indiana Fatal Crashes by Age Group, 1994-2003



Please note that while Figure 2 presents the percentage of drivers in fatal crashes who had a BAC of .08+ for 1994–2003, the definition of intoxication in Indiana was not changed from .10+ g/dl to .08+ g/dl until 2001. Please also note that there were so few drivers under age 16 involved in fatal crashes in Indiana annually, intoxication rates for this age group are excluded from the chart. Drivers of unknown age involved in fatal crashes are also excluded from analysis. Also, percentages as displayed are calculated from the unrounded number of estimated drivers.

Figure 3. Previous Driving Records of Indiana Drivers Involved in Fatal Indiana Traffic Crashes, by Blood Alcohol Concentration, 2003



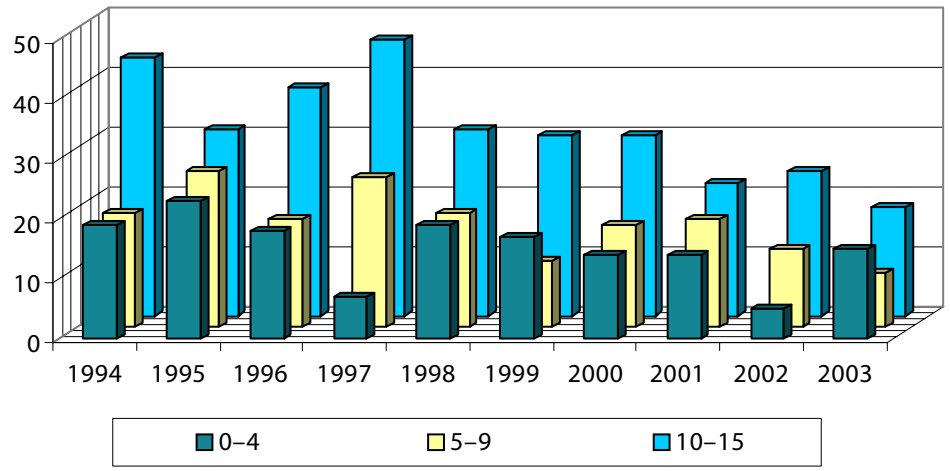
In Indiana, during 2003, 9 percent of the drivers involved in fatal crashes with a BAC 0.08 g/dl or greater had a previous "driving while intoxicated" conviction. Twenty-three percent of that same group had a prior speeding conviction, and 30 percent had received a prior suspension or revocation of their driver's license.

42 children under the age of 16 died in motor vehicle crashes in 2003.

Children

Of the 834 traffic-related fatalities in Indiana during 2003, children 0–15 years old accounted for 5.0 percent (42), just slightly below the national figure of 6.0 percent. Children under the age of 16 accounted for 4.3 percent (33) of all vehicle occupant fatalities (excludes pedestrians and pedalcyclists) in Indiana (746), compared to 5.3 percent in the U.S. One child died in an Indiana crash every eight and a half days in 2003.

Figure 4. Total Traffic Fatalities Among Children 0–15 Years Old by Age Group for Indiana, 1994–2003



In 2003, 32 percent of male drivers 15–20 years old involved in fatal crashes were speeding.

Speeding

The definition of a speeding-related crash is when the driver was charged with a speeding-related offense or if an officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash.

Speeding is one of the most prevalent factors contributing to traffic crashes. The National Highway Traffic Safety Administration has determined that the economic cost to society due to speeding-related crashes is estimated to be $40.4 billion per year nationwide. For Indiana, the losses total an estimated $185 million annually, or an estimated $500,000 every day. Nationally, in 2003, speeding was found to be a contributing factor in 31 percent of all fatal crashes and resulted in the loss of 13,380 lives. In Indiana, 26 percent of the fatal crashes involved speeding during 2003, and caused 217 deaths.

In Indiana, (where safety belt usage was known) only 51 percent of **speeding** drivers in 2003 under 21 years of age who were involved in fatal crashes were wearing their safety belt. In contrast, 58 percent (79 of 137) of **nonspeeding** drivers involved in fatal crashes in the same age group were restrained. For drivers 21 years and older, 35 percent of **speeding** drivers involved in fatal crashes were using restraints at the time of the crash. Forty-three percent of female drivers involved in speeding-related crashes were restrained compared to males at only 38 percent. Among **nonspeeding** drivers in fatal crashes, 62 percent of all drivers were restrained with female drivers more likely to be restrained than males at 75 percent and 58 percent respectively.

Figure 5. Fatal Crashes in Indiana by Speeding Status, 1994-2003

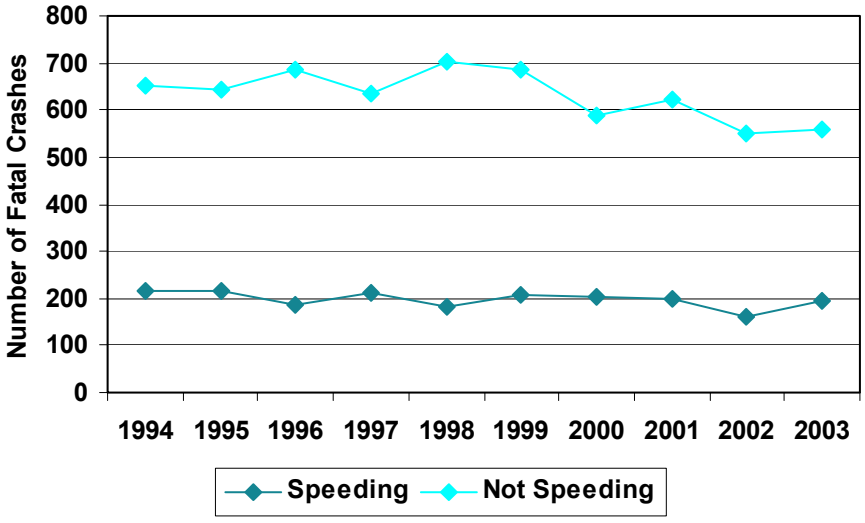
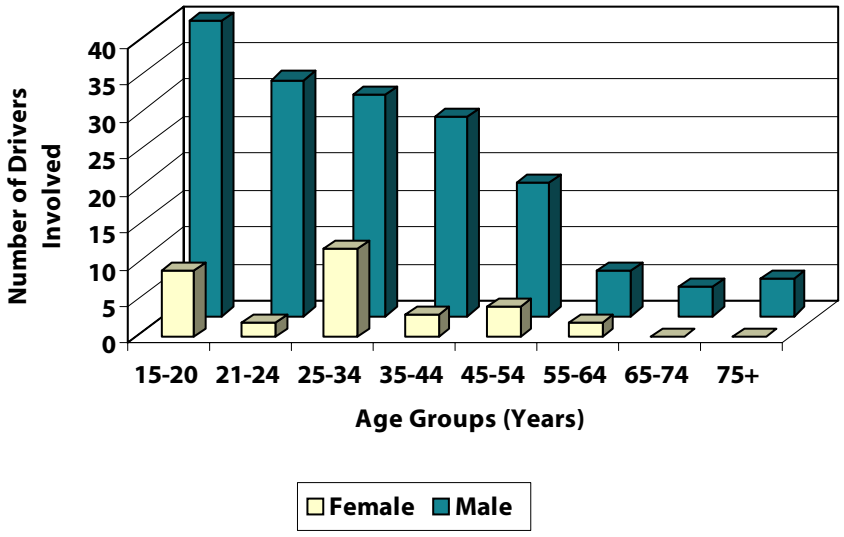


Figure 6. Indiana Speeding Drivers in Fatal Crashes by Age and Gender, 2003



Despite passage of the GDL law in Indiana, the number of young drivers in fatal crashes has not decreased.

Young Drivers

In 2003, 299,192 of Indiana's licensed drivers were between the ages of 16 and 20. These young drivers accounted for 6.8 percent of Indiana's total licensed population. Nationally, the highest fatality and injury rate per 100,000 population was found among 15–20 year olds.[1] To combat this problem, Indiana implemented the Graduated Driver's Licensing (GDL) Law (Senate Enrolled Act 16) on January 1, 1999. This law incorporated two major changes with the intent to reduce the involvement of young and inexperienced drivers in crashes. First, drivers under the age of 18 are not permitted to operate a motor vehicle during curfew hours.[2] Second, during the first 90 days of licensure, these drivers may not transport other passengers unless a 21-year-old or older licensed passenger is accompanying them in the front seat.

Table 5. Young Drivers Involved in Fatal Crashes, 1995-2003

	1995–1998 Annual Average	1999	2000–2003 Annual Average	% Decrease Subsequent to GDL Passage
Young Driver Fatalities	102	99	92	9.8%
Young Drivers Involved in Fatal Crashes	161	208	190	18.0% increase
Driver Fatalities (>20 years of age)	524	589	480	8.4%
Drivers Involved in Fatal Crashes (>20 years of age)	1,147	1,184	1,040	9.3%

[1] According to the Federal Highway Administration, motor vehicle crashes are the leading cause of death for people ages 6 to 33 in the United States. More information is available at http://safety.fhwa.gov/fourthlevel/brakes_facts.htm.

[2] This includes the hours of 11 PM–5 AM Sunday through Thursday, and 1 AM–5 AM on Friday and Saturday nights.

This publication was prepared on behalf of the Indiana Criminal Justice Institute by Purdue University's Center for the Advancement of Transportation Safety. All information contained within was gathered from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia provided by the National Highway Traffic Safety Administration (NHTSA) available at http://www.fars.nhtsa.dot.gov. All figures are considered current as of August 20, 2004. Please direct any questions concerning data in this document to the Center for the Advancement of Transportation Safety, Purdue University, Potter Engineering Center, Room 322, 500 Central Drive, West Lafayette, IN, 47907-2022.